SEQUENCE LISTING

<110> Lambeth, J. David

Cheng, Guangjie

<120> Regulatory Protein For Nox Enzymes

<130> 05501-0202 (43150-287577)

<150> US 60/405,647

<151> 2002-08-23

<150> US 60/396,170

<151> 2002-07-16

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Val Gln Ile Lys Arg Leu Gln Thr Phe Ala Phe Ser Val Arg Trp Ser
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gac ggc agc gac acc ttc gtg cgc agg agt tgg gac gaa ttc agg cag     145
Asp Gly Ser Asp Thr Phe Val Arg Arg Ser Trp Asp Glu Phe Arg Gln
            35                  40                  45

ctc aag acc ctc aag gag acc ttc ccg gtg gag gcg ggc ctg ctg cgg     193
Leu Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu Arg
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aga tct gac cgc gtt ctc cca aag ctt ctc gat gca cca ctg ttg gga     241
Arg Ser Asp Arg Val Leu Pro Lys Leu Leu Asp Ala Pro Leu Leu Gly
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cgc gtg ggg cgc acg agc cgc ggc ctg gcg cgc ctg cag ctg ttg gaa     289
Arg Val Gly Arg Thr Ser Arg Gly Leu Ala Arg Leu Gln Leu Leu Glu
80                  85                  90                  95

acc tat tct cgg agg ctg ctg gcg act gca gag cgc gtg gca cgg agc     337
Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu Arg Val Ala Arg Ser
                100                 105                 110

ccg acg atc act ggc ttc ttc gca ccg caa ccc ctg gac ctg gag ccc     385
Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro Leu Asp Leu Glu Pro
            115                 120                 125

gcg ctg cca ccc ggc agc cgg gtg atc ctg ccc acc cca gag gag cag     433
Ala Leu Pro Pro Gly Ser Arg Val Ile Leu Pro Thr Pro Glu Glu Gln
        130                 135                 140

cct ctt tct cgc gct gcg ggc cgc ctc tcc atc cac agt ctg gag gct     481
Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile His Ser Leu Glu Ala
    145                 150                 155

cag agc ctg cgc tgc ctg cag ccc ttc tgt acc cag gac acg cgg gat     529
Gln Ser Leu Arg Cys Leu Gln Pro Phe Cys Thr Gln Asp Thr Arg Asp
160                 165                 170                 175

agg cct ttt cag gcg cag gcc cag gag agc ctg gac gtg ctg ctg cgg     577
Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu Asp Val Leu Leu Arg
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Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala Ala Pro Gly Gln Gly Arg
        210                 215                 220

gag gga ggc ccg tcc cta ggg agc agc ggt ccc cag ttc tgt gct tcc      721
Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro Gln Phe Cys Ala Ser
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cgc gcc tac gag agc agc cgc gca gat gag ctg tcc gtg ccc gcg ggg      769
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240                 245                 250                 255

gcg cgc gtg cgc gtg ttg gaa acg tca gac cgc ggc tgg tgg cta tgc      817
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agg tac ggc gac cgg gcg ggc cta ctc ccc gcg gtg ctg ctg cgg ccg      865
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gaa ggg ctg ggc gct ctc ctg agc ggg acg ggg ttc cgt gga gga gac      913
Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly Phe Arg Gly Gly Asp
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    305                 310                 315

gcc cct ccc ccc acc gtg ccc acc cga cct tcg ccg ggc gcc atc cag     1009
Ala Pro Pro Pro Thr Val Pro Thr Arg Pro Ser Pro Gly Ala Ile Gln
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                340                 345                 350

cgc cag ggc cgc cct cga ggg tgc gtg gac tct gtg ccg cac ccc acg     1105
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Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu Arg Arg
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Ser Asp Arg Val Leu Pro Lys Leu Leu Asp Ala Pro Leu Leu Gly Arg
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Val Gly Arg Thr Ser Arg Gly Leu Ala Arg Leu Gln Leu Leu Glu Thr
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Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu Arg Val Ala Arg Ser Pro
            100                 105                 110

Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro Leu Asp Leu Glu Pro Ala
        115                 120                 125

Leu Pro Pro Gly Ser Arg Val Ile Leu Pro Thr Pro Glu Glu Gln Pro
    130                 135                 140

Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile His Ser Leu Glu Ala Gln
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Ser Leu Arg Cys Leu Gln Pro Phe Cys Thr Gln Asp Thr Arg Asp Arg
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Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu Asp Val Leu Leu Arg His
            180                 185                 190
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Pro Ser Gly Trp Trp Leu Val Glu Asn Glu Asp Arg Gln Thr Ala Trp
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Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro Gln Phe Cys Ala Ser Arg
225                 230                 235                 240

Ala Tyr Glu Ser Ser Arg Ala Asp Glu Leu Ser Val Pro Ala Gly Ala
                245                 250                 255

Arg Val Arg Val Leu Glu Thr Ser Asp Arg Gly Trp Trp Leu Cys Arg
            260                 265                 270

Tyr Gly Asp Arg Ala Gly Leu Leu Pro Ala Val Leu Leu Arg Pro Glu
        275                 280                 285

Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly Phe Arg Gly Gly Asp Asp
    290                 295                 300

Pro Ala Gly Glu Ala Arg Gly Phe Pro Glu Pro Ser Gln Ala Thr Ala
305                 310                 315                 320

Pro Pro Pro Thr Val Pro Thr Arg Pro Ser Pro Gly Ala Ile Gln Ser
                325                 330                 335

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Val Gln Ile Lys Arg Leu Gln Thr Phe Ala Phe Ser Val Arg Trp Ser
                20                  25                  30

gac ggc agc gac acc ttc gtg cgc agg agt tgg gac gaa ttc agg cag     145
Asp Gly Ser Asp Thr Phe Val Arg Arg Ser Trp Asp Glu Phe Arg Gln
            35                  40                  45

ctc aag aag acc ctc aag gag acc ttc ccg gtg gag gcg ggc ctg ctg     193
Leu Lys Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu
        50                  55                  60

cgg aga tct gac cgc gtt ctc cca aag ctt ctc gat gca cca ctg ttg     241
Arg Arg Ser Asp Arg Val Leu Pro Lys Leu Leu Asp Ala Pro Leu Leu
    65                  70                  75

gga cgc gtg ggg cgc acg agc cgc ggc ctg gcg cgc ctg cag ctg ttg     289
Gly Arg Val Gly Arg Thr Ser Arg Gly Leu Ala Arg Leu Gln Leu Leu
80                  85                  90                  95

gaa acc tat tct cgg agg ctg ctg gcg act gca gag cgc gtg gca cgg     337
Glu Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu Arg Val Ala Arg
                100                 105                 110

agc ccg acg atc act ggc ttc ttc gca ccg caa ccc ctg gac ctg gag     385
Ser Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro Leu Asp Leu Glu
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ccc gcg ctg cca ccc ggc agc cgg gtg atc ctg ccc acc cca gag gag     433
Pro Ala Leu Pro Pro Gly Ser Arg Val Ile Leu Pro Thr Pro Glu Glu
        130                 135                 140

cag cct ctt tct cgc gct gcg ggc cgc ctc tcc atc cac agt ctg gag     481
Gln Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile His Ser Leu Glu
    145                 150                 155
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gct cag agc ctg cgc tgc ctg cag ccc ttc tgt acc cag gac acg cgg      529
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gat agg cct ttt cag gcg cag gcc cag gag agc ctg gac gtg ctg ctg      577
Asp Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu Asp Val Leu Leu
                180                 185                 190

cgg cac ccc tca ggc tgg tgg ctg gtg gag aac gaa gac cgg cag acc      625
Arg His Pro Ser Gly Trp Trp Leu Val Glu Asn Glu Asp Arg Gln Thr
            195                 200                 205

gcc tgg ttt cca gcg ccc tac ctg gag gag gcg gcc ccg ggc caa ggc      673
Ala Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala Ala Pro Gly Gln Gly
        210                 215                 220

cgg gag gga ggc ccg tcc cta ggg agc agc ggt ccc cag ttc tgt gct      721
Arg Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro Gln Phe Cys Ala
    225                 230                 235

tcc cgc gcc tac gag agc agc cgc gca gat gag ctg tcc gtg ccc gcg      769
Ser Arg Ala Tyr Glu Ser Ser Arg Ala Asp Glu Leu Ser Val Pro Ala
240                 245                 250                 255

ggg gcg cgc gtg cgc gtg ttg gaa acg tca gac cgc ggc tgg tgg cta      817
Gly Ala Arg Val Arg Val Leu Glu Thr Ser Asp Arg Gly Trp Trp Leu
                260                 265                 270

tgc agg tac ggc gac cgg gcg ggc cta ctc ccc gcg gtg ctg ctg cgg      865
Cys Arg Tyr Gly Asp Arg Ala Gly Leu Leu Pro Ala Val Leu Leu Arg
            275                 280                 285

ccg gaa ggg ctg ggc gct ctc ctg agc ggg acg ggg ttc cgt gga gga      913
Pro Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly Phe Arg Gly Gly
        290                 295                 300

gac gac ccg gcg ggt gag gcc cgg ggc ttc cct gaa ccc tcc cag gcc      961
Asp Asp Pro Ala Gly Glu Ala Arg Gly Phe Pro Glu Pro Ser Gln Ala
    305                 310                 315

acc gcc cct ccc ccc acc gtg ccc acc cga cct tcg ccg ggc gcc atc     1009
Thr Ala Pro Pro Pro Thr Val Pro Thr Arg Pro Ser Pro Gly Ala Ile
320                 325                 330                 335

cag agc cgc tgc tgc acc gtc aca cgc agg gcc ctg gag cgg cgc cca     1057
Gln Ser Arg Cys Cys Thr Val Thr Arg Arg Ala Leu Glu Arg Arg Pro
                340                 345                 350

cgg cgc cag ggc cgc cct cga ggg tgc gtg gac tct gtg ccg cac ccc     1105
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Lys Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu Arg
50 55 60

Arg Ser Asp Arg Val Leu Pro Lys Leu Leu Asp Ala Pro Leu Leu Gly
65 70 75 80

Arg Val Gly Arg Thr Ser Arg Gly Leu Ala Arg Leu Gln Leu Leu Glu
85 90 95

Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu Arg Val Ala Arg Ser
100 105 110

Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro Leu Asp Leu Glu Pro
115 120 125

Ala Leu Pro Pro Gly Ser Arg Val Ile Leu Pro Thr Pro Glu Glu Gln
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Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile His Ser Leu Glu Ala
145 150 155 160

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Gln Ser Leu Arg Cys Leu Gln Pro Phe Cys Thr Gln Asp Thr Arg Asp
                165                 170                 175

Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu Asp Val Leu Leu Arg
            180                 185                 190

His Pro Ser Gly Trp Trp Leu Val Glu Asn Glu Asp Arg Gln Thr Ala
        195                 200                 205

Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala Ala Pro Gly Gln Gly Arg
    210                 215                 220

Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro Gln Phe Cys Ala Ser
225                 230                 235                 240

Arg Ala Tyr Glu Ser Ser Arg Ala Asp Glu Leu Ser Val Pro Ala Gly
                245                 250                 255

Ala Arg Val Arg Val Leu Glu Thr Ser Asp Arg Gly Trp Trp Leu Cys
            260                 265                 270

Arg Tyr Gly Asp Arg Ala Gly Leu Leu Pro Ala Val Leu Leu Arg Pro
        275                 280                 285

Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly Phe Arg Gly Gly Asp
    290                 295                 300

Asp Pro Ala Gly Glu Ala Arg Gly Phe Pro Glu Pro Ser Gln Ala Thr
305                 310                 315                 320

Ala Pro Pro Pro Thr Val Pro Thr Arg Pro Ser Pro Gly Ala Ile Gln
                325                 330                 335

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gtg cag atc aag agg ctc caa acg ttt gcc ttc tct gtg cgc tgg tca      97
Val Gln Ile Lys Arg Leu Gln Thr Phe Ala Phe Ser Val Arg Trp Ser
                20                  25                  30

gac ggc agc gac acc ttc gtg cgc agg agt tgg gac gaa ttc agg cag     145
Asp Gly Ser Asp Thr Phe Val Arg Arg Ser Trp Asp Glu Phe Arg Gln
            35                  40                  45

ctc aag aag acc ctc aag gag acc ttc ccg gtg gag gcg ggc ctg ctg     193
Leu Lys Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu
        50                  55                  60

cgg aga tct gac cgc gtt ctc cca aag ctt ctc ggt cag gcc agc ctg     241
Arg Arg Ser Asp Arg Val Leu Pro Lys Leu Leu Gly Gln Ala Ser Leu
    65                  70                  75

gat gca cca ctg ttg gga cgc gtg ggg cgc acg agc cgc ggc ctg gcg     289
Asp Ala Pro Leu Leu Gly Arg Val Gly Arg Thr Ser Arg Gly Leu Ala
80                  85                  90                  95

cgc ctg cag ctg ttg gaa acc tat tct cgg agg ctg ctg gcg act gca     337
Arg Leu Gln Leu Leu Glu Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala
                100                 105                 110

gag cgc gtg gca cgg agc ccg acg atc act ggc ttc ttc gca ccg caa     385
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Glu Arg Val Ala Arg Ser Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln
            115                 120                 125

ccc ctg gac ctg gag ccc gcg ctg cca ccc ggc agc cgg gtg atc ctg      433
Pro Leu Asp Leu Glu Pro Ala Leu Pro Pro Gly Ser Arg Val Ile Leu
        130                 135                 140

ccc acc cca gag gag cag cct ctt tct cgc gct gcg ggc cgc ctc tcc      481
Pro Thr Pro Glu Glu Gln Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser
    145                 150                 155

atc cac agt ctg gag gct cag agc ctg cgc tgc ctg cag ccc ttc tgt      529
Ile His Ser Leu Glu Ala Gln Ser Leu Arg Cys Leu Gln Pro Phe Cys
160                 165                 170                 175

acc cag gac acg cgg gat agg cct ttt cag gcg cag gcc cag gag agc      577
Thr Gln Asp Thr Arg Asp Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser
                180                 185                 190

ctg gac gtg ctg ctg cgg cac ccc tca ggc tgg tgg ctg gtg gag aac      625
Leu Asp Val Leu Leu Arg His Pro Ser Gly Trp Trp Leu Val Glu Asn
            195                 200                 205

gaa gac cgg cag acc gcc tgg ttt cca gcg ccc tac ctg gag gag gcg      673
Glu Asp Arg Gln Thr Ala Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala
        210                 215                 220

gcc ccg ggc caa ggc cgg gag gga ggc ccg tcc cta ggg agc agc ggt      721
Ala Pro Gly Gln Gly Arg Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly
    225                 230                 235

ccc cag ttc tgt gct tcc cgc gcc tac gag agc agc cgc gca gat gag      769
Pro Gln Phe Cys Ala Ser Arg Ala Tyr Glu Ser Ser Arg Ala Asp Glu
240                 245                 250                 255

ctg tcc gtg ccc gcg ggg gcg cgc gtg cgc gtg ttg gaa acg tca gac      817
Leu Ser Val Pro Ala Gly Ala Arg Val Arg Val Leu Glu Thr Ser Asp
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cgc ggc tgg tgg cta tgc agg tac ggc gac cgg gcg ggc cta ctc ccc      865
Arg Gly Trp Trp Leu Cys Arg Tyr Gly Asp Arg Ala Gly Leu Leu Pro
            275                 280                 285

gcg gtg ctg ctg cgg ccg gaa ggg ctg ggc gct ctc ctg agc ggg acg      913
Ala Val Leu Leu Arg Pro Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr
        290                 295                 300

ggg ttc cgt gga gga gac gac ccg gcg ggt gag gcc cgg ggc ttc cct      961
Gly Phe Arg Gly Gly Asp Asp Pro Ala Gly Glu Ala Arg Gly Phe Pro
    305                 310                 315

gaa ccc tcc cag gcc acc gcc cct ccc ccc acc gtg ccc acc cga cct     1009
Glu Pro Ser Gln Ala Thr Ala Pro Pro Pro Thr Val Pro Thr Arg Pro
320                 325                 330                 335
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tcg ccg ggc gcc atc cag agc cgc tgc tgc acc gtc aca cgc agg gcc     1057
Ser Pro Gly Ala Ile Gln Ser Arg Cys Cys Thr Val Thr Arg Arg Ala
                340                 345                 350

ctg gag cgg cgc cca cgg cgc cag ggc cgc cct cga ggg tgc gtg gac     1105
Leu Glu Arg Arg Pro Arg Arg Gln Gly Arg Pro Arg Gly Cys Val Asp
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Ser Val Pro His Pro Thr Thr Glu Gln
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Gly Ser Asp Thr Phe Val Arg Arg Ser Trp Asp Glu Phe Arg Gln Leu
        35                  40                  45

Lys Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu Arg
    50                  55                  60

Arg Ser Asp Arg Val Leu Pro Lys Leu Leu Gly Gln Ala Ser Leu Asp
65                  70                  75                  80

Ala Pro Leu Leu Gly Arg Val Gly Arg Thr Ser Arg Gly Leu Ala Arg
                85                  90                  95

Leu Gln Leu Leu Glu Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu
            100                 105                 110
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Arg Val Ala Arg Ser Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro
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    130                 135                 140

Thr Pro Glu Glu Gln Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile
145                 150                 155                 160

His Ser Leu Glu Ala Gln Ser Leu Arg Cys Leu Gln Pro Phe Cys Thr
                165                 170                 175

Gln Asp Thr Arg Asp Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu
            180                 185                 190

Asp Val Leu Leu Arg His Pro Ser Gly Trp Trp Leu Val Glu Asn Glu
        195                 200                 205

Asp Arg Gln Thr Ala Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala Ala
    210                 215                 220

Pro Gly Gln Gly Arg Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro
225                 230                 235                 240

Gln Phe Cys Ala Ser Arg Ala Tyr Glu Ser Ser Arg Ala Asp Glu Leu
                245                 250                 255

Ser Val Pro Ala Gly Ala Arg Val Arg Val Leu Glu Thr Ser Asp Arg
            260                 265                 270

Gly Trp Trp Leu Cys Arg Tyr Gly Asp Arg Ala Gly Leu Leu Pro Ala
        275                 280                 285

Val Leu Leu Arg Pro Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly
    290                 295                 300

Phe Arg Gly Gly Asp Asp Pro Ala Gly Glu Ala Arg Gly Phe Pro Glu
305                 310                 315                 320

Pro Ser Gln Ala Thr Ala Pro Pro Pro Thr Val Pro Thr Arg Pro Ser
                325                 330                 335
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Pro Gly Ala Ile Gln Ser Arg Cys Cys Thr Val Thr Arg Arg Ala Leu
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gtg cag atc aag agg ctc caa acg ttt gcc ttc tct gtg cgc tgg tca      97
Val Gln Ile Lys Arg Leu Gln Thr Phe Ala Phe Ser Val Arg Trp Ser
                20                  25                  30

gac ggc agc gac acc ttc gtg cgc agg agt tgg gac gaa ttc agg cag     145
Asp Gly Ser Asp Thr Phe Val Arg Arg Ser Trp Asp Glu Phe Arg Gln
            35                  40                  45

ctc aag acc ctc aag gag acc ttc ccg gtg gag gcg ggc ctg ctg cgg     193
Leu Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu Arg
        50                  55                  60

aga tct gac cgc gtt ctc cca aag ctt ctc ggt cag gcc agc ctg gat     241
Arg Ser Asp Arg Val Leu Pro Lys Leu Leu Gly Gln Ala Ser Leu Asp
    65                  70                  75
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gca cca ctg ttg gga cgc gtg ggg cgc acg agc cgc ggc ctg gcg cgc      289
Ala Pro Leu Leu Gly Arg Val Gly Arg Thr Ser Arg Gly Leu Ala Arg
80                  85                  90                  95

ctg cag ctg ttg gaa acc tat tct cgg agg ctg ctg gcg act gca gag      337
Leu Gln Leu Leu Glu Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu
                100                 105                 110

cgc gtg gca cgg agc ccg acg atc act ggc ttc ttc gca ccg caa ccc      385
Arg Val Ala Arg Ser Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro
            115                 120                 125

ctg gac ctg gag ccc gcg ctg cca ccc ggc agc cgg gtg atc ctg ccc      433
Leu Asp Leu Glu Pro Ala Leu Pro Pro Gly Ser Arg Val Ile Leu Pro
        130                 135                 140

acc cca gag gag cag cct ctt tct cgc gct gcg ggc cgc ctc tcc atc      481
Thr Pro Glu Glu Gln Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile
    145                 150                 155

cac agt ctg gag gct cag agc ctg cgc tgc ctg cag ccc ttc tgt acc      529
His Ser Leu Glu Ala Gln Ser Leu Arg Cys Leu Gln Pro Phe Cys Thr
160                 165                 170                 175

cag gac acg cgg gat agg cct ttt cag gcg cag gcc cag gag agc ctg      577
Gln Asp Thr Arg Asp Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu
                180                 185                 190

gac gtg ctg ctg cgg cac ccc tca ggc tgg tgg ctg gtg gag aac gaa      625
Asp Val Leu Leu Arg His Pro Ser Gly Trp Trp Leu Val Glu Asn Glu
            195                 200                 205

gac cgg cag acc gcc tgg ttt cca gcg ccc tac ctg gag gag gcg gcc      673
Asp Arg Gln Thr Ala Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala Ala
        210                 215                 220

ccg ggc caa ggc cgg gag gga ggc ccg tcc cta ggg agc agc ggt ccc      721
Pro Gly Gln Gly Arg Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro
    225                 230                 235

cag ttc tgt gct tcc cgc gcc tac gag agc agc cgc gca gat gag ctg      769
Gln Phe Cys Ala Ser Arg Ala Tyr Glu Ser Ser Arg Ala Asp Glu Leu
240                 245                 250                 255

tcc gtg ccc gcg ggg gcg cgc gtg cgc gtg ttg gaa acg tca gac cgc      817
Ser Val Pro Ala Gly Ala Arg Val Arg Val Leu Glu Thr Ser Asp Arg
                260                 265                 270

ggc tgg tgg cta tgc agg tac ggc gac cgg gcg ggc cta ctc ccc gcg      865
Gly Trp Trp Leu Cys Arg Tyr Gly Asp Arg Ala Gly Leu Leu Pro Ala
            275                 280                 285

gtg ctg ctg cgg ccg gaa ggg ctg ggc gct ctc ctg agc ggg acg ggg      913
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Val Leu Leu Arg Pro Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly
        290                 295                 300

ttc cgt gga gga gac gac ccg gcg ggt gag gcc cgg ggc ttc cct gaa      961
Phe Arg Gly Gly Asp Asp Pro Ala Gly Glu Ala Arg Gly Phe Pro Glu
    305                 310                 315

ccc tcc cag gcc acc gcc cct ccc ccc acc gtg ccc acc cga cct tcg     1009
Pro Ser Gln Ala Thr Ala Pro Pro Pro Thr Val Pro Thr Arg Pro Ser
320                 325                 330                 335

ccg ggc gcc atc cag agc cgc tgc tgc acc gtc aca cgc agg gcc ctg     1057
Pro Gly Ala Ile Gln Ser Arg Cys Cys Thr Val Thr Arg Arg Ala Leu
                340                 345                 350

gag cgg cgc cca cgg cgc cag ggc cgc cct cga ggg tgc gtg gac tct     1105
Glu Arg Arg Pro Arg Arg Gln Gly Arg Pro Arg Gly Cys Val Asp Ser
            355                 360                 365

gtg ccg cac ccc acg acg gag cag tgagcgcgag gatcc                   1144
Val Pro His Pro Thr Thr Glu Gln
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Gln Ile Lys Arg Leu Gln Thr Phe Ala Phe Ser Val Arg Trp Ser Asp
            20                  25                  30

Gly Ser Asp Thr Phe Val Arg Arg Ser Trp Asp Glu Phe Arg Gln Leu
        35                  40                  45

Lys Thr Leu Lys Glu Thr Phe Pro Val Glu Ala Gly Leu Leu Arg Arg
    50                  55                  60

Ser Asp Arg Val Leu Pro Lys Leu Leu Gly Gln Ala Ser Leu Asp Ala
65                  70                  75                  80
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Pro Leu Leu Gly Arg Val Gly Arg Thr Ser Arg Gly Leu Ala Arg Leu
                85                  90                  95

Gln Leu Leu Glu Thr Tyr Ser Arg Arg Leu Leu Ala Thr Ala Glu Arg
            100                 105                 110

Val Ala Arg Ser Pro Thr Ile Thr Gly Phe Phe Ala Pro Gln Pro Leu
        115                 120                 125

Asp Leu Glu Pro Ala Leu Pro Pro Gly Ser Arg Val Ile Leu Pro Thr
    130                 135                 140

Pro Glu Glu Gln Pro Leu Ser Arg Ala Ala Gly Arg Leu Ser Ile His
145                 150                 155                 160

Ser Leu Glu Ala Gln Ser Leu Arg Cys Leu Gln Pro Phe Cys Thr Gln
                165                 170                 175

Asp Thr Arg Asp Arg Pro Phe Gln Ala Gln Ala Gln Glu Ser Leu Asp
            180                 185                 190

Val Leu Leu Arg His Pro Ser Gly Trp Trp Leu Val Glu Asn Glu Asp
        195                 200                 205

Arg Gln Thr Ala Trp Phe Pro Ala Pro Tyr Leu Glu Glu Ala Ala Pro
    210                 215                 220

Gly Gln Gly Arg Glu Gly Gly Pro Ser Leu Gly Ser Ser Gly Pro Gln
225                 230                 235                 240

Phe Cys Ala Ser Arg Ala Tyr Glu Ser Ser Arg Ala Asp Glu Leu Ser
                245                 250                 255

Val Pro Ala Gly Ala Arg Val Arg Val Leu Glu Thr Ser Asp Arg Gly
            260                 265                 270

Trp Trp Leu Cys Arg Tyr Gly Asp Arg Ala Gly Leu Leu Pro Ala Val
        275                 280                 285
```

```
Leu Leu Arg Pro Glu Gly Leu Gly Ala Leu Leu Ser Gly Thr Gly Phe
    290                 295                 300

Arg Gly Gly Asp Asp Pro Ala Gly Glu Ala Arg Gly Phe Pro Glu Pro
305                 310                 315                 320

Ser Gln Ala Thr Ala Pro Pro Pro Thr Val Pro Thr Arg Pro Ser Pro
                325                 330                 335

Gly Ala Ile Gln Ser Arg Cys Cys Thr Val Thr Arg Arg Ala Leu Glu
            340                 345                 350

Arg Arg Pro Arg Arg Gln Gly Arg Pro Arg Gly Cys Val Asp Ser Val
        355                 360                 365

Pro His Pro Thr Thr Glu Gln
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